

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-5 (canceled) (to permit allowable material to issue; withdrawn from prosecution).

6. (currently amended) A method of biostimulation of organic tissue which is for enhancing growth of seedlings, comprising the steps of:

a) choosing an oligomode transmission fiber having at least one means to selectively leak radiation from at least one preselected position along the length of said fiber, thus providing a laterally leaking fiber;

b) placing said laterally leaking, oligomode transmission fiber in close proximity to said organic tissue at a plurality desired treatment sites, and wherein said means to selectively leak radiation are positioned so as to align lateral leaks at said desired treatment sites;

c) activating a coherent light source at a proximal end of said fiber; and

d) selectively leaking radiation from said source through said at least one means to selectively leak radiation from multiple positions along a length of said fiber independent from emission at a distal end; and

wherein said steps comprising said method are more specifically:

a1) assembling a bundle of said laterally leaking oligomode fibers of a length sufficient to traverse a planting area;

b1) locating said bundle of laterally leaking oligomode fibers across said planting area,

c1) directing individual laterally leaking oligomode fibers out of said bundle at desired planting intervals, said individual laterally leaking fibers having said means to selectively leak radiation from said individual oligomode fibers;

d1) placing said lateral leaking individual fiber along with a seedling into the soil;
and

e1) transmitting coherent light from a light source through said laterally leaking oligomode fibers to deliver biostimulating radiation to said seedlings.

7.(previously amended) The method of claim 6 wherein step a is accomplished by choosing a cladded waveguide, which can selectively leak radiation along said length of fiber.

8.(previously amended) The method of claim 6 wherein step d is accomplished by selectively leaking radiation through evanescent wave decouplers positioned along preselected positions along said length of fiber.

9. (original) The method of claim 6 wherein said irradiation according to step c is continuous.

10.-11 (canceled)

12.(currently amended) ~~[The method wherein said biostimulation of organic tissue]~~ A method of biostimulation of organic tissue, which is for enhancing seed germination and growth, comprising the steps of:

a) choosing an oligomode transmission fiber having at least one means to selectively leak radiation from at least one preselected position along the length of said fiber, thus providing a laterally leaking fiber;

b) placing said laterally leaking, oligomode transmission fiber in close proximity to said organic tissue at a plurality desired treatment sites, and wherein said means to selectively leak radiation are positioned so as to align lateral leaks at said desired treatment sites;

c) activating a coherent light source at a proximal end of said fiber; and

d) selectively leaking radiation from said source through said at least one means to selectively leak radiation from multiple positions along a length of said fiber independent from emission at a distal end; and

wherein said steps comprising said method are more specifically:

a1) selecting said laterally leaking oligomode fiber capable of transmitting a chosen wavelength for biostimulation;

b1) placing said means to selectively leak radiation from said laterally leaking oligomode fiber at a desired planting interval along said fiber;

c1) placing a length of said laterally leaking oligomode fiber along side seeds below grade during planting;

d1) transmitting coherent light from said light source through said laterally leaking oligomode fiber to deliver biostimulating radiation to said seeds.

13. (canceled)

14. (canceled) incorporated into claim 6

15.(new) The method of claim 12 wherein step a is accomplished by choosing a cladded waveguide, which can selectively leak radiation along said length of fiber.

16.(new) The method of claim 12 wherein step d is accomplished by selectively leaking radiation through evanescent wave decouplers positioned along preselected positions along said length of fiber.

17. (new) The method of claim 12 wherein said irradiation according to step c is continuous.